

Schwartz Spencer
 Form 4
 November 18, 2010

FORM 4 UNITED STATES SECURITIES AND EXCHANGE COMMISSION
 Washington, D.C. 20549

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person *
 Schwartz Spencer

2. Issuer Name and Ticker or Trading Symbol
 ATLAS AIR WORLDWIDE HOLDINGS INC [AAWW]

5. Relationship of Reporting Person(s) to Issuer
 (Check all applicable)

(Last) (First) (Middle)
 C/O ATLAS AIR WORLDWIDE HOLDINGS, INC., 2000 WESTCHESTER AVENUE
 (Street)

3. Date of Earliest Transaction (Month/Day/Year)
 11/17/2010

____ Director _____ 10% Owner
 Officer (give title below) _____ Other (specify below)
 SVP & CFO

PURCHASE, NY 10577
 (City) (State) (Zip)

4. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)
 Form filed by One Reporting Person
 Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) | 4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|--|-----------------------------------|
| | | | | (A) or (D) | Price | | |
| | | | | Code | V | Amount | |
| Common Stock, \$0.01 par value | 11/17/2010 | | A | | 2,199 | A | \$ 0 4,737 D |
| Common Stock, \$0.01 par value | 11/17/2010 | | F | | 797 | D | \$ 55.1 3,940 D |

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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(9-02)

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned
(e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5) | 6. Date Exercisable and Expiration Date (Month/Day/Year) | 7. Title and Amount of Underlying Securities (Instr. 3 and 4) | 8. Price or Value of Underlying Securities (Instr. 3 and 4) |
|--|--|--------------------------------------|--|--------------------------------|---|--|---|---|
| Restricted Stock Units | <u>(1)</u> | 11/17/2010 | | M | 2,199 | <u>(2)</u> / <u>(2)</u> | Common Stock | 2,199 |

Reporting Owners

Reporting Owner Name / Address

Relationships

Director 10% Owner Officer Other

Schwartz Spencer
C/O ATLAS AIR WORLDWIDE HOLDINGS, INC.
2000 WESTCHESTER AVENUE
PURCHASE, NY 10577

SVP & CFO

Signatures

/s/ Michael W. Borkowski Michael W. Borkowski, as Attorney-in-Fact

11/18/2010

__Signature of Reporting Person

Date

Explanation of Responses:

* If the form is filed by more than one reporting person, see Instruction 4(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

(1) Upon vesting, the Reporting Person is entitled to receive one share of Common Stock for each restricted stock unit.

(2) Of the 6,596 restricted stock units awarded, 4,397 have vested, with 2,199 units scheduled to vest on November 17, 2011.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

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